Wouter Tierens

List of Publications by Year
in descending order

52	569	759233 12	713466 21
papers	citations	h-index	g-index

52	52	52	650
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Resonant waveâ€“filament interactions as a loss mechanism for HHFW heating and current drive. Plasma Physics and Controlled Fusion, 2022, 64, 035001.	2.1	7
2	Status and future development of Heating and Current Drive for the EU DEMO. Fusion Engineering and Design, 2022, 180, 113159.	1.9	22
3	On the origin of high harmonic fast wave edge losses in NSTX. Nuclear Fusion, 2022, 62, 096011.	3.5	5
4	Development of pre-conceptual ITER-type ICRF antenna design for DEMO. Nuclear Fusion, 2021, 61, 046039.	3.5	11
5	Interaction between filaments and ICRF in the plasma edge. Nuclear Materials and Energy, 2021, 26, 100941.	1.3	9
6	DEMO ion cyclotron heating: Status of ITER-type antenna design. Fusion Engineering and Design, 2021, 165, 112269.	1.9	6
7	Slab-geometry surface waves on steep gradients and the origin of related numerical issues in a variety of ICRF codes. Journal of Plasma Physics, 2021, 87, .	2.1	11
8	Overview of recent ICRF studies and RF-related wave-field measurements on ASDEX upgrade. AIP Conference Proceedings, 2020, , .	0.4	1
9	Edge ICRF simulations in 3D geometry: From MHD equilibrium to coupling determination. AIP Conference Proceedings, 2020, , .	0.4	1
10	ICRH coupling optimization and impurity behavior in EAST and WEST. AIP Conference Proceedings, 2020, , .	0.4	3
11	Improved operating space of the ICRF system in ASDEX upgrade. AIP Conference Proceedings, 2020, , .	0.4	2
12	Recent improvements to the ICRF antenna coupling code â€œRAPLICASOLâ€• AIP Conference Proceedings, 2020, , .	0.4	4
13	3D RAPLICASOL model of simultaneous ICRF FW and SW propagation in ASDEX upgrade conditions. AIP Conference Proceedings, 2020, , .	0.4	2
14	Influence of ELMs on ICRF wave scattering. AIP Conference Proceedings, 2020, , .	0.4	1
15	Filament-assisted mode conversion in magnetized plasmas. Physics of Plasmas, 2020, 27, 010702.	1.9	15
16	The importance of realistic plasma filament waveforms for the study of resonant wave-filament interactions in tokamak edge plasmas. Physics of Plasmas, 2020, 27, .	1.9	12
17	Redirection of radio-frequency power flow by filaments. Nuclear Fusion, 2020, 60, 036010.	3.5	8
18	Validation of high-fidelity ion cyclotron range of frequencies antenna coupling simulations in full 3D geometry against experiments in the ASDEX Upgrade tokamak. Plasma Physics and Controlled Fusion, 2020, 62, 125021.	2.1	7

#	Article	IF	Citations
19	Metallic impurity content behavior during ICRH-heated L-mode discharges in EAST. Nuclear Fusion, 2020, 60, 126003.	3.5	10
20	Scattering of ion cyclotron range of frequency waves by filaments and ELMs. Nuclear Fusion, 2020, 60, 096001.	3.5	3
21	Overview of physics studies on ASDEX Upgrade. Nuclear Fusion, 2019, 59, 112014.	3.5	38
22	Numerical solutions of Maxwell's equations in 3D in frequency domain with linear sheath boundary conditions. Physics of Plasmas, 2019, 26, 083501.	1.9	11
23	Simulation of the ion cyclotron range of frequencies slow wave and the lower hybrid resonance in 3D in RAPLICASOL. Plasma Physics and Controlled Fusion, 2019, 61, 115011.	2.1	15
24	ICRF coupling in ASDEX upgrade magnetically perturbed 3D plasmas. Plasma Physics and Controlled Fusion, 2019, 61, 125019.	2.1	7
25	Overview of the JET preparation for deuteriumâ€“tritium operation with the ITER like-wall. Nuclear Fusion, 2019, 59, 112021.	3.5	87
26	Perfectly Matched Layers for time-harmonic transverse electric wave propagation in cylindrical and toroidal gyrotropic media. Journal of Computational Physics, 2019, 389, 94-110.	3.8	9
27	Validation of the ICRF antenna coupling code RAPLICASOL against TOPICA and experiments. Nuclear Fusion, 2019, 59, 046001.	3.5	31
28	Impact of ICRF on the scrape-off layer and on plasma wall interactions: From present experiments to fusion reactor. Nuclear Materials and Energy, 2019, 18, 131-140.	1.3	34
29	Unification of Leapfrog and Crank–Nicolson Finite Difference Time Domain Methods. SIAM Journal of Scientific Computing, 2018, 40, A306-A330.	2.8	2
30	Explicit and provably stable spatiotemporal FDTD refinement. Journal of Computational Physics, 2018, 375, 901-917.	3.8	2
31	Effects of outer top gas injection on ICRF coupling in ASDEX Upgrade: towards modelling of ITER gas injection. Plasma Physics and Controlled Fusion, 2017, 59, 075004.	2.1	12
32	Radio frequency heating induced edge plasma convection: self-consistent simulations and experiments on ASDEX Upgrade. Nuclear Fusion, 2017, 57, 116048.	3.5	14
33	Making ICRF power compatible with a high-Z wall in ASDEX Upgrade. Plasma Physics and Controlled Fusion, 2017, 59, 014022.	2.1	59
34	Nonlinear plasma sheath potential in the ASDEX Upgrade 3-strap antenna: a parameter scan. Nuclear Fusion, 2017, 57, 116034.	3.5	20
35	Recent progress on improving ICRF coupling and reducing RF-specific impurities in ASDEX Upgrade. EPJ Web of Conferences, 2017, 157, 02013.	0.3	1
36	SOL RF physics modelling in Europe, in support of ICRF experiments. EPJ Web of Conferences, 2017, 157, 01001.	0.3	9

#	Article	IF	Citations
37	Sequential modelling of ICRF wave near RF fields and asymptotic RF sheaths description for AUG ICRF antennas. EPJ Web of Conferences, 2017, 157, 03020.	0.3	2
38	Plasma edge modelling with ICRF coupling. EPJ Web of Conferences, 2017, 157, 03066.	0.3	3
39	Characterization of 3-strap antennas in ASDEX Upgrade. EPJ Web of Conferences, 2017, 157, 03005.	0.3	12
40	3-Dimensional density profiles in edge plasma simulations for ICRF heating. EPJ Web of Conferences, 2017, 157, 03053.	0.3	6
41	Higher-order hybrid implicit/explicit FDTD time-stepping. Journal of Computational Physics, 2016, 327, 643-652.	3.8	2
42	Stable time-domain differential equations which reproduce the warm plasma dielectric tensor. , 2014, , .		1
43	3-D Discrete Dispersion Relation, Numerical Stability, and Accuracy of the Hybrid FDTD Model for Cold Magnetized Toroidal Plasma. IEEE Transactions on Antennas and Propagation, 2014, 62, 6307-6316.	5.1	11
44	Implicit Local Refinement for Evanescent Layers Combined With Classical FDTD. IEEE Microwave and Wireless Components Letters, 2013, 23, 225-227.	3.2	4
45	Finite-temperature corrections to the time-domain equations of motion for perpendicular propagation in nonuniform magnetized plasmas. Physics of Plasmas, 2012, 19, .	1.9	4
46	A time-domain discretisation of Maxwell's equations in nontrivial media using collocated fields. , 2012, , .		0
47	An unconditionally stable time-domain discretization on cartesian meshes for the simulation of nonuniform magnetized cold plasma. Journal of Computational Physics, 2012, 231, 5144-5156.	3.8	14
48	Time-domain formulation of cold plasma based on mass-lumped finite elements. , 2011, , .		0
49	BOR-FDTD subgridding based on finite element principles. Journal of Computational Physics, 2011, 230, 4519-4535.	3.8	8
50	A new approach to BOR-FDTD Subgridding. , 2011, , .		0
51	A Novel Cylindrical Probe for Measuring the Ion Temperature in Magnetized Plasmas. Contributions To Plasma Physics, 2010, 50, 841-846.	1.1	0
52	Recent progress in modeling ICRF-edge plasma interactions with application to ASDEX Upgrade. Nuclear Fusion, 0, , .	3.5	11